

REMARKS

Claims 1, 2, 4, 7, 8, and 10-13 are rejected under 35 U.S.C. 102(a) as being anticipated by Halperin et al. (U.S. Patent 6,115,616); claims 3 and 9 are rejected 35 U.S.C. 103(a) as being unpatentable over Halperin et al. and further in view of Harris (U.S. 6,222,456); claims 5, 6, 11, 12, and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halperin et al. and further in view of Kai (U.S. Patent 4, 882,471); and claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halperin et al., Kai, as applied to claim 17 above and further in view of Kinzie (U.S. Patent 6,326,924). These rejections are respectfully disagreed with, and are traversed below.

Halperin et al. teaches a detachable keyboard which can equip both wireless handsets and cellular phones wherein,

“...a keyboard card is clipped to the rest of the handset and is completely detached from the body when unclipped. Wireless communication between the body and keyboard is used when the card is unclipped, while contacts are activated in the clipped position so that the wireless handset then functions as in the case of a non detachable keyboard. Alternatively, one can also use a version where the keyboard card is linked to the rest of the handset by a wire and can be easily clipped and unclipped to the body of the handset. (referring to column 1, lines 38-49, emphasis added)

The system of Halperin et al. utilizes electrical contacts which are activated in the “clipped” position as opposed to the present invention which only uses an RF wireless link regardless of whether the keypad is attached or detached. Claim 1 recites in part,

“...a self-powered information entry part comprising a keypad or keyboard module that is detachable from said communication part and that is coupled,

whether attached or detached, through a wireless link to said communication part for conveying keystroke information from said information entry part to said communication part. (emphasis added)

Thus, Halperin et al. fundamentally differs from the present invention as Halperin et al. is concerned with electrically connecting the keyboard card wherein, "(a) switch S1 activates the contacts C1 and deactivates the transmitter E1 in the clipped position, and activates the transmitter E1 and deactivates the contacts C1 in the unclipped position." (referring to column 2, lines 56-59)

Claims 1, 2, 4, 7, 8, 10, and 13 are thus clearly not anticipated by Halperin et al. In that independent claims 1, 7, and 13 are not anticipated by Halperin et al., dependent claims 2-6, 8-12, and 14 are also not anticipated by Halperin et al. and should be allowed.

Kai teaches electronic equipment which includes a keyboard portion arranged on an electronic equipment body, for inputting data, a solar cell, arranged on the electronic equipment body, for supplying power, a cover for protecting the solar cell, and a display portion arranged on the cover wherein "(t)he power source portion 4 is connected to the body 1 through a flexible wire", (referring to column 2, lines 51-53).

Claim 15 recites in part,

"an information entry part comprising a keypad or keyboard module that is separate from said communication part and that is coupled through an RF link to said communication part for conveying keystroke information from said information entry part to said communication part, said module comprising at least one solar cell for powering said module."

Kai fundamentally differs from the present invention, as the power source portion (solar cell) is

connected to the body of the electronic equipment through a flexible wire, whereas in the present invention, a keypad module that is separate from the body comprises at least one solar cell for powering said separate module. Thus, it would not have been obvious to one skilled in the art to combine the teachings of Halperin et al. with Kai.

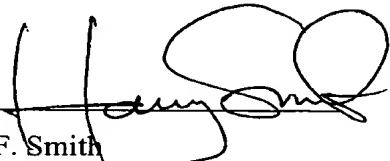
As that independent claims 15 and 17 are clearly not rendered unpatentable by the proposed combination of Halperin et al. and Kai, dependent claims 16 and 18-20 are also not rendered unpatentable by the proposed combination of Halperin et al. and Kai, whether considered alone or in combination with Kinzie (U.S. Patent 6,326,934).

The other references cited by the Examiner have been reviewed and applicant agrees with the Examiner that the additional references cited either alone or in combination with the other references cited and relied on by the Examiner do not render claims 1-20 unpatentable. For example, Shindo (U.S. Patent 5,857,157) discloses a portable communication apparatus with a body casing 2 and a card casing 3, wherein both the body casing 2 and the card casing 3 have a light emitter and a light detector. When the card casing 3 is attached to the body casing 2, data is transmitted between the light emitter of the body casing 2 corresponding to the light detector of the card casing 3 and the light emitter of the card casing 3 corresponding to the light detector of the body casing 2, as is illustrated in Figures 5, 8 and 10. Figure 7 of Shindo illustrates the portable communication apparatus in use wherein the card casing 3 is detached from body casing 2. There is no disclosure of data being communicated between body casing 2 and card casing 3 when the two are detached. (see column 6, lines 33-41)

Based on the foregoing arguments, it should be clear that none of the prior art cited and relied on by the Examiner, either singularly or in combination, either anticipates or renders obvious the claimed subject matter. Claims 1-20 are thus clearly allowable over the prior art cited by the Examiner, and the Examiner is respectfully requested to reconsider and remove the rejections.

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Respectfully submitted:



Harry F. Smith
Reg. No.: 32,493

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Date

Customer No.: 29683

HARRINGTON & SMITH, LLP
4 Research Drive
Shelton, CT 06484-6212

Telephone: (203)925-9400
Facsimile: (203)944-0245
email: hsmith@hspatent.com

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Ann OKrentowich
Name of Person Making Deposit
Ann OKrentowich